

# Paraplegia

## ► Personal history

هلال فتحي كامل هلال male patient, 55 years old, from Cairo, has 3 off spring, the youngest is 3 years old, manual worker, no special habits of medical importance, Rt. handed.

## ► c/o

Heaviness of both lower limbs of 22 years duration.

## ► HPI

The condition started 22 years ago when he fell from a height of 3 meters on his back. At 1<sup>st</sup> the patient suffered from complete **paralysis of both lower limbs with flaccidity** and **girdle pain** at the level of the umbilicus increased by work, coughing, sneezing relieved by rest. Then the patient was admitted to hospital and investigated by X-ray with contrast and Exploratory operation was done.

4 weeks later, the patient experienced gradual onset, progressive course of **weakness** associated with **stiffness, with no wasting or twitches**. This weakness was **distal** more than proximal, in the **abductor** muscles more than adductors, in **flexor** more than extensors with no involuntary movements. This weakness was associated with **diminished sensation** in both lower limbs and the patient felt as if he **walks on cotton**.

No symptoms of **sphincteric** affection.

No symptoms of increased **I.C.T.**

No symptoms of **speech** disorders.

No symptoms suggesting other system affection.

## ► Past history

- No past history of fever, bilharziasis , drugs or operations.

## ► Family history

- No similar condition in family.
- No consanguinity.
- No common disease in family.

## ► General exam

- **Temperature:** 37.2° c.
- **Bl. Pressure:** 130/70.
- **Pulse:** regular, 70 beat/minute, average volume, no special character, vessel wall not felt, equal in both sides with intact peripheral pulsation.
- **Mentality:** The patient is fully conscious, well oriented for time, place and person. Average mood and memory. The patient is co-operative with average intelligence.

► **Examination of Speech:** Normal.

► **Examination of Cranial Nerves:** Normal.

**▶ Examination of Motor System :****▶ Inspection**

- There is extension in both lower limbs (paraplegia in extension).
- No skeletal deformities, no trophic changes, no involuntary movement no muscle wasting.

**▶ Examination of Tone**

- There is normal tone in both upper limbs .
- Bilateral asymmetrical Hypertonia in lower limbs in the form of spasticity affecting antigravity muscles. It is more on Lt. lower limb (suggesting UMN).

**▶ Percussion**

No fasciculation or myotonia.

**▶ Examination of Muscle Power**

- There is normal muscle power in both upper limbs,
- Bilateral asymmetrical Weakness in lower limbs. It is distal more than proximal, abductors more than adductors, flexors more than extensors. It is more on Lt. lower limb.

**▶ Coordination**

Coordination cannot be examined on both lower limbs because of weakness.

Normal coordination in both upper limbs confirmed by finger to nose, finger to finger, finger to doctor's finger in both eye opening and eye closure.

**▶ Reflexes**

- There is normoreflexia in both upper limbs.
- In Both lower limbs: hyperreflexia with +ve pathological reflexes (Patellar, Adductor), no ankle or patellar clonus.
- +ve Babinski on both sides.
- Abdominal reflex : lost below the level of the umbilicus .

**▶ Sensory:**

- Superficial sensations: Sensory Level at T10.
- Deep sensation: lost.
- Cortical sensation : can't be examined in both lower limbs.

**▶ Back:** Scar of exploration at the level of T7.

**▶ Gait:** Scissoring gait.

**▶ No affection in other system examination.**

**▶ Investigation**

- Plain X-Ray , Myelography .

**▶ Treatment**

Physiotherapy.

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► **Diagnosis :**

Organic Paraplegia Of Spinal Focal Compression Type. It's due to Extramedullary lesion at the level of T10. The patient is in the spastic stage (in Extension).

► **Paraplegia** (UMNL Bilateral  $\Delta$ ) : Affect both L.L. + Organic

1. Hypertonia in antigravity + spasticity.
2. Muscle Weakness: distal, progravity, abductors.
3. Hyperreflexia + pathological reflexes.
4. +Ve Babinski in both L.L.
5. Sensory Level at umbilicus.
6. no cranial nerve affection.

► **Spinal:**

- ❖ **Not Cortical:** Rare, Need parasagittal lesion, no coma convulsion or aphasia.
- ❖ **Not brainstem:** no affection of Resp. Center, no Cranial N. involvement, need lesion in midline to affect L.L which is medial and no bladder dysfunction.

► **Focal:** Level .

► **Compression:** No history of fever (inflammation), +Ve history of trauma.

► **Extramedullary:**

- ❖ Sensory Level.
- ❖ Asymmetrical Power, reflexes.
- ❖ Girdle pain.
- ❖ No Sphincteric affection.

► **Level of T10:**

- ❖ History: girdle pain, exploration at T7.
- ❖ Sensory level at T10.
- ❖ Abdominal Reflex lost at T10.
- ❖ Vertebral :scar.

► **Spastic Stage:**

- ❖ Hypertonia
- ❖ Hyperreflexia

► **Extension:** Patient's Position.

► **N.B**

***Inflammatory paraplegia differs from traumatic one in the following :***

1. Fever at the onset.
2. Regressive course.
3. Corticosteroids in TTT.

► **N.B:** Retention of urine may occur at the onset of acute lesions.